



Complete Summary

TITLE

Appropriate testing for children with pharyngitis: percentage of children 2 to 18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS® 2010: Healthcare Effectiveness Data & Information Set. Vol. 1, Narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2009 Jul. 90 p.

National Committee for Quality Assurance (NCQA). HEDIS® 2010: Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2009 Jul. 417 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of children 2 to 18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode*.

*Outpatient or emergency department (ED) visit with only a diagnosis of pharyngitis and a dispensed antibiotic for that episode of care during the Intake Period.

RATIONALE

Pharyngitis is the only condition among upper respiratory infections (URIs) whose diagnosis is easily and objectively validated through administrative and laboratory data, and it can serve as an important indicator of appropriate antibiotic use among all respiratory tract infections. Overuse of antibiotics has been directly linked to the prevalence of antibiotic resistance in the community; promoting judicious use of antibiotics is important to reducing levels of antibiotic resistance. Pediatric clinical practice guidelines recommend that only children with diagnosed group A streptococcus (strep) pharyngitis based on appropriate lab tests be treated with antibiotics. A strep test (rapid assay or throat culture) is the definitive test of group A strep pharyngitis. Excess use of antibiotics is highly prevalent for pharyngitis; about 35 percent of the total 9 million antibiotics prescribed for pharyngitis in 1998 were estimated to be in excess.

PRIMARY CLINICAL COMPONENT

Pharyngitis; antibiotics; group A streptococcus (strep) test

DENOMINATOR DESCRIPTION

Children 2 years of age as of July 1 of the year prior to the measurement year to 18 years of age as of June 30 of the measurement year, with a Negative Medication History, who had an outpatient or emergency department (ED) visit with only a diagnosis of pharyngitis and a dispensed antibiotic for that episode of care during the Intake Period (see the "Description of Case Finding" and the "Denominator Inclusions/Exclusions" fields in the Complete Summary)

NUMERATOR DESCRIPTION

Children from the denominator with a group A streptococcus (strep) test (refer to Table CWP-D in the original measure documentation for codes to identify group A strep tests) in the seven-day period from three days prior to the Index Episode Start Date (IESD) through three days after the IESD (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Overall poor quality for the performance measured
Use of this measure to improve performance
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

National Committee for Quality Assurance (NCQA). The state of health care quality 2009. Washington (DC): National Committee for Quality Assurance (NCQA); 2009. 127 p.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
Decision-making by businesses about health-plan purchasing
Decision-making by consumers about health plan/provider choice
External oversight/Medicaid
External oversight/State government program
Internal quality improvement
National reporting

Application of Measure in its Current Use

CARE SETTING

Managed Care Plans

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age 2 years through 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

- Only about half of sore throat cases in children are caused by group A streptococcus, more commonly referred to as "strep throat."
- One study found that in 36 percent of cases where a patient received antibiotics and underwent a test for strep throat, the test came back negative.
- In a recent nationwide physician survey, 42 percent reported they would start antibiotic treatment for children with pharyngitis before knowing the results and continue with treatment despite a negative strep test.

EVIDENCE FOR INCIDENCE/PREVALENCE

Benin AL, Vitkauskas G, Thornquist E, Shiffman RN, Concato J, Krumholz HM, Shapiro ED. Improving diagnostic testing and reducing overuse of antibiotics for children with pharyngitis: a useful role for the electronic medical record. *Pediatr Infect Dis J* 2003 Dec;22(12):1043-7. [PubMed](#)

Linder JA, Bates DW, Lee GM, Finkelstein JA. Antibiotic treatment of children with sore throat. *JAMA* 2005 Nov 9;294(18):2315-22. [PubMed](#)

Park SY, Gerber MA, Tanz RR, Hickner JM, Galliher JM, Chuang I, Besser RE. Clinicians' management of children and adolescents with acute pharyngitis. *Pediatrics* 2006 Jun;117(6):1871-8. [PubMed](#)

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

See the "Rationale" field.

UTILIZATION

Acute pharyngitis accounts for seven million annual visits to outpatient and emergency departments.

EVIDENCE FOR UTILIZATION

Cooper RJ, Hoffman JR, Bartlett JG, Besser RE, Gonzales R, Hickner JM, Sande MA, American Academy of Family Physicians, American College of Physicians-American Society of Internal Medicine, Centers for Disease Control. Principles of appropriate antibiotic use for acute pharyngitis in adults: background. *Ann Intern Med* 2001 Mar 20;134(6):509-17. [PubMed](#)

COSTS

Testing children with pharyngitis for strep costs less and saves more lives than the strategy of treating all children.

EVIDENCE FOR COSTS

Tsevat J, Kotagal UR. Management of sore throats in children: a cost-effectiveness analysis. Arch Pediatr Adolesc Med 1999 Jul;153(7):681-8. [73 references]
[PubMed](#)

Van Howe RS, Kusnier LP 2nd. Diagnosis and management of pharyngitis in a pediatric population based on cost-effectiveness and projected health outcomes. Pediatrics 2006 Mar;117(3):609-19. [PubMed](#)

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Children 2 years of age as of July 1 of the year prior to the measurement year to 18 years of age as of June 30 of the measurement year continuously enrolled 30 days prior to the Episode Date* through 3 days after the Episode Date* (inclusive) with no gaps in enrollment during the continuous enrollment period

**Episode Date:* The date of service for any outpatient or emergency department (ED) visit (refer to Table CWP-B in the original measure documentation for codes to identify visit type) during the Intake Period with only a diagnosis of pharyngitis (refer to Table CWP-A in the original measure documentation for codes to identify pharyngitis). Exclude claims/encounters with more than one diagnosis.

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Children 2 years of age as of July 1 of the year prior to the measurement year to 18 years of age as of June 30 of the measurement year, with Negative Medication History*, who had an outpatient or emergency department (ED) visit with only a diagnosis of pharyngitis and a dispensed antibiotic for that episode of care during the Intake Period**

**Negative Medication History:* To qualify for Negative Medication History, the following criteria must be met:

- A period of 30 days prior to the Episode Date, during which time the member had no pharmacy claims for either new or refill prescriptions for a listed antibiotic drug
- No prescriptions filled more than 30 days prior to the Episode Date that are active on the Episode Date (refer to Table CWP-C in the original measure documentation for antibiotic medications)

A prescription is considered **active** if the "days supply" indicated on the date the member filled the prescription is the number of days or more between that date and the relevant service date. The 30-day look back period for pharmacy data includes the 30 days prior to the Intake Period**.

***Intake Period:* A 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year. The Intake Period is used to capture eligible episodes of treatment.

Refer to the original measure documentation for steps to identify the eligible population.

Exclusions

- Exclude claims/encounters with more than one diagnosis.
- Do not include ED visits that result in an inpatient admission.
- Exclude Episode Dates if the member did not receive antibiotics on or three days after the Episode Date.
- *Test for Negative Medication History.* Exclude Episode Dates where a new or refill prescription for an antibiotic medication was filled 30 days prior to the Episode Date or where a prescription filled more than 30 days prior to the Episode Date was active on the Episode Date.

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter
Patient Characteristic
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Children from the denominator with a group A streptococcus (strep) test (refer to Table CWP-D in the original measure documentation for codes to identify group A strep tests) in the seven-day period from three days prior to the Index Episode Start Date (IESD) through three days after the IESD*

**Index Episode Start Date:* The earliest Episode Date during the Intake Period that meets all of the following criteria:

- Linked to a dispensed antibiotic prescription on or during the three days after the Episode Date
- A 30-day Negative Medication History prior to the Episode Date
- The member was continuously enrolled during the 30 days prior to through 3 days after the Episode Date

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Laboratory data
Pharmacy data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors, geographic factors, etc.)

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure requires that separate rates be reported for Medicaid and commercial product lines.

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties**EXTENT OF MEASURE TESTING**

Unspecified

Identifying Information**ORIGINAL TITLE**

Appropriate testing for children with pharyngitis (CWP).

MEASURE COLLECTION

[HEDIS® 2010: Health Plan Employer Data and Information Set](#)

MEASURE SET NAME

[Effectiveness of Care](#)

MEASURE SUBSET NAME

[Respiratory Conditions](#)

DEVELOPER

National Committee for Quality Assurance

FUNDING SOURCE(S)

Unspecified

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

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ENDORSER

National Quality Forum

INCLUDED IN

Ambulatory Care Quality Alliance
Physician Quality Reporting Initiative

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2004 Jan

REVISION DATE

2009 Jul

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. various p.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS® 2010: Healthcare Effectiveness Data & Information Set. Vol. 1, Narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2009 Jul. 90 p.

National Committee for Quality Assurance (NCQA). HEDIS® 2010: Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2009 Jul. 417 p.

MEASURE AVAILABILITY

The individual measure, "Appropriate Testing for Children with Pharyngitis (CWP)," is published in "HEDIS® 2010. Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

COMPANION DOCUMENTS

The following is available:

- National Committee for Quality Assurance (NCQA). The state of health care quality 2009. Washington (DC): National Committee for Quality Assurance (NCQA); 2009. 127 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

NQMC STATUS

This NQMC summary was completed by ECRI on June 16, 2006. The information was not verified by the measure developer. This NQMC summary was updated by ECRI Institute on November 15, 2007. The information was not verified by the measure developer. This NQMC summary was updated by ECRI Institute on March 10, 2009. The information was verified by the measure developer on May 29, 2009. This NQMC summary was updated again by ECRI Institute on January 15, 2010.

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